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NO 21

Okey H. Costill - March 9th

Inaugural Dissertation

on

Chlorosis -

Okey H. Costill

admitted March 21st. 1821

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To the Professors of the University of Pennsylvania

Gentlemen -

In presenting to you my thesis, it would perhaps be superfluous, to declare that I am not actuated, by a desire of obtruding myself thus upon you, nor by the expectation, that what I write, can either give reputation to its author, or tend to the advancement of science. However desirable, those objects may be, and however fondly I may anticipate that period, when the labors of succeeding years, may rank me among the children of science, the present humble state of my acquirements, admonishes me, that the event is far distant, and can only be brought about, by an assiduous and long continued application, to those studies which may truly be said, to have just commenced.

It is in compliance, with your regulations, that I now offer to you a thesis. To apologize for

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I shall therefore submit it, without hesitation, trusting, that it will not be considered, the offspring of vanity - but an imperfect attempt, to comply with your requisitions - that while the sober eye of wisdom, dwells with minuteness, upon pages sketched by an unpractised hand, it will view with indulgence, those faults, which it cannot fail to detect, and that the same benevolent feelings, which have so often been evinced, will again be exerted, in an approaching hour of anxiety, in which as has lately been eloquently observed, "All our hopes and our fears our joys and our sorrows are crowded into a narrow compass -

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Chlorosis -

The term Chlorosis, is employed in rather an indefinite sense, and is sometimes used to designate a certain state of debility, which occurs to married women, after delivery or abortion. By the term Chlorosis, I would here be understood to characterize, those symptoms which occur about the age of puberty, connected with a retention of the menses, at that period of life, at which they usually make, their first appearance. These symptoms are heaviness, listlessness, and aversion, to motion, fatigue on the least exertion, palpitation at the heart, pain in the loins and hips, flatulence, acidity and costiveness, preternatural appetite for lime, chalk, and other absorbents, with many other dyspeptic symptoms. - As the disease advances, the face becomes pale, and afterwards assumes a yellowish colour, verging on a green from whence the term green sickness. - The lips lose

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their color, the eyes are encircled with a lived areola, the whole body, has a leuco-phlegmatic appearance, with every indication of want of energy, in the system. The feet are affected with oedematous swellings, the breathing is much hurried, by any vigorous exertion, the pulse is quick, but small, the breath becomes fœtid, and the patient is not unfrequently, affected with symptoms of hysteria. Sometimes, a great quantity of urine is voided in the morning, and hectic fever occasionally attends.

Much difference of opinion, has existed as to the cause of the disease. As it makes its appearance about the age of puberty, and is very constantly connected, with a retention of the menstrual fluid, it was at one time supposed, that this retention, was the immediate cause. This opinion, was however opposed by succeeding physicians, and it was contended by Cullen, and others, that the retention of the menses, was a

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I shall give Cullen's theory in his own words-
" These symptoms (viz those above enumerated)
when occurring in a high degree, constitute the
chlorosis of authors, hardly ever appearing separate
from a retention of the menses, and attending to these
symptoms, the cause of this retention, may I think
be perceived. These symptoms, manifestly shew
a considerable laxity, and flaccidity of the system,
and therefore give reason to conclude, that the
retention of the menses, accompanying them is
owing to a weaker action, of the vessels of the
uterus, which therefore do not propel the blood into
their extremities, with a force sufficient to open
them, and to pour out blood from them. How it
happens, that at a certain period of life, a state
of flaccidity of the system, arises in young women
not generally affected with such weakness, and
of which but a little before, they had given no
indication, may be difficult to explain.- (But

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I would attempt it in this way.— As a certain state of the ovaria in females, disposes them to venery, about the period when the menses first appear, it is to be presumed that the state of the ovaria, and that of the uterine vessels, are in some measure connected, and as generally, symptoms of a change in the state of the former, appear before those of the latter, it may be inferred that the state of the ovaria, has a great share, in exciting the action of the uterine vessels, and in producing the menstrual discharge. But analogous to what happens in the male sex, it may be presumed, that in females a certain state of the genitals, is necessary to give tone, and tension, to the whole system, and therefore, that if the stimulus arising from the genitals, be wanting the whole system, must necessarily fall into a flaccid or torpid state, and thence the chlorosis, or retentation of the menses may arise —

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the menses, may be referred to a certain state, or affection of the ovaria, but what is precisely the nature of this affection, of the ovaria or what are the causes of it, I will not pretend to explain, nor can I explain, in what manner, that primary cause of retention may be removed"

This is the opinion of Cullen, and from this it may be perceived, that he considers the disease as originating in a flaccidity, and laxity of the system, and that the retention of the menses, is a symptomatic affection — The difficulty, which he acknowledges, of accounting for a state of debility, occurring spontaneously, at this period where no previous indication is given, renders his theory exceptionable, and the propriety of making debility a primary cause of disease, is certainly questionable, in as much as debility is more generally the consequence, than the cause of diseases.

Hamilton, who has combated the opinion of Cullen, with some ingenuity alleges costiveness as

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the cause of the disease, and accordingly recommends purgatives, as a principal remedy.- While we acknowledge that costiveness, is invariably found among the symptoms of the disease, and that the removal of this symptom, is indispensable to its cure, it would perhaps be going too far to admit, upon his authority alone that costiveness, is a primary cause of the disease, especially when we consider, the strong attachment which he evinces, to purgative medicines, and the long train of diseases, he locates in the alimentary canal. -

Amidst the controversies on this subject, some have imputed the origin of chlorosis, to venereal desire: This opinion, bears absurdity upon its face, for how can venereal appetite possibly exist, when the organs upon which it depends, are not yet developed. This sentiment should be at once rejected - as admitting physical influence, over moral refinement, most humiliating and supposing impurity of mind, at a period of life in which (more perhaps than in any other) affection may

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To enter minutely, into the subject of menstruation, to discuss the merits, of the various theories which have at different periods been adopted, to account, for this mysterious operation of nature is a task for which, I have neither inclination, nor ability. Yet it is not improbable, that an attentive consideration of the facts relative to menstruation, would lead to a conclusion, very different from the one generally adopted viz, that it is a symptomatic affection. It is now generally agreed, that the menstrual discharge is not pure blood, but that it is the result of a secretory office of the uterus, and it is supposed to keep the uterus, in a state fit for conception.- The inconvenience, and many painful symptoms, induced by a suppression of this evacuation, after it has been once established, come under our daily observation, and why may we not infer, with equal propriety, that a retention of it at the time, when nature makes an effort to establish the discharge, may be productive of at least equal

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derangement. The retention of the menses, and consequent chlorosis, may I think be attributed to the want of secretory of the uterus, which owing to some irregularity, has been rendered incapabable, of taking on that action, at the time when the general system, requires such evacuation.- It may be enquired, how it is that the uterus, does not arrive at a state capable of executing its functions, when the general system, requires its operation? To this I can only answer, that the many irregularities of life, the force of education, & peculiarities of situation are in many instances, calculated to thwart the salutary operations of nature, and destroy the harmony of her works. There appears to be a determinate period, in the existence of every production of nature at which her work is completed, when the slow, but undeviating operations which she has instituted for its growth, nutrition, and the full development of its powers, have brought it to a state of physical perfection, and rendered it capable, of fulfilling all the

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purposes, for which it was designed. These operations, are however liable to frequent interruption, from the vicissitudes, and irregularities, incident to life, - and in no instance perhaps more so, than in the human species -

These observations, will apply more particularly to the female, on account of the various purposes, for which she was designed, the consequent multiplicity of organs in her formation, and the exquisite sensibility, with which she is endowed - The hand of nature, lingers long on a production, in which she blends, so many perfections, in which she unites charms that are resistless, with offices that are indispensable, and while she awards to woman, those physical, and intellectual beauties, which secure to her, the admiration of her species, she imposes on her the task, of rendering that species, perpetual. When we consider, how complicated the structure must necessarily be, of a being destined to the fulfilment of offices so various, and important, and the

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intimate connection, which exists between every part, it is not a matter of surprise, that the interruption of one of those functions, should be attended, with a consequent disarrangement of the whole system, and thereby produce disease -
This opinion, derives some suppot from an examination of the symptoms, that occur in Chlorosis, all of which, in the commencement evince local determination. The hysteric symptoms, which sometimes occur may be imputed, to a determination of blood, to the uterus, of which it is incapable of relieving itself by secretion, though this incapacity for secretion, may not arise from actual debility, but from rigidity or some cause, very foreign to debility -
The palpitation of the heart, and disordered respiration, may arise from a superabundant quantity, of circulating fluid, and a consequent oppression of the heart, and lungs; and a determination of blood to these parts, may account for the pulmonary consump

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tions, which are often a consequence of chlorosis.-

The pains in the back, and hips and the occasional increase of urine, all denote the struggles of nature, to relieve herself of a burthen, arising from an undue quantity of fluids; and when this attempt is completely unsuccessful, the strength of the system, sinks and a state of great laxity, and flaccidity occurs.-

To say that the retention of the menses, is never a symptomatic disorder, would I am persuaded, be going much too far. But that it may, and often does occur, without any previous disease or debility, and that Chlorosis follows, as a consequence in the manner above stated, the foregoing considerations induce me to believe.-

In whatever manner, Chlorosis may be produced, it is certainly attended in its confirmed state, with much feebleness, and emaciation- and the treatment is to be conducted, upon the plan of invigorating the system, and at the same time rousing the

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Hamilton commences the treatment of the disease, by evacuating pretty copiously, the alimentary canal. This is no doubt rendered necessary, by the constipation, and consequent morbid accumulation, which attends the complaint. After this is accomplished, the tonic plan of treatment, is to be resorted to. The diet, should be generous, a moderate quantity of wine, should be allowed, and the patient, should take gentle exercise on horseback. The Cinchona, the Gentian, and Chalybeate preparations, should be employed.

It is remarked by Dr Thomas, that Chlorosis is a disease, at all times much relieved by steel, and that it will bear it, even when there is a considerable degree of fever. On this account he recommends the Bath waters, and enters into a discussion, of the Chalybeate waters of Europe, which it would be out of place to treat of here. Perhaps however, the cures performed, in this way may be in a great

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measure owing, to a change of scene, gay society, and travelling - The next indication, is that of exciting the uterus to action, and thereby promoting the menstrual discharge. This may be often accomplished, by exercise such as walking or dancing - by friction, electricity, or by putting the feet frequently into warm water; or by heat applied to the parts of generation, and the abdomen.

If these should prove unsuccessful, there are certain stimulating cathartics, which may be employed, with much advantage. Of these the best perhaps is Aloes, either alone, or in combination with Calomel, a preparation, which I have employed successfully, in pills composed of four grains of aloes, to one grain of Calomel.- As an emmenagogue the Polygala Senoka is highly useful. It is a very diffusible stimulant, and is recommended by Dr Chapman, as extremely well suited, to bring about the secretory action, of the Uterus - It may be given either in powder or decoction the latter is preferred. It may

be taken in such quantities as the Stomach will bear.
Dr Dewees in the third number of the Medical museum recommends the volatile tincture of gum guaiacum. in high terms.

℞.

Pulv. gum. guaiac. ℥ VII ss.
Carbon Sod. vel Potas. ℥ ii ss.
Pulv. Piment. ℥ i ss
Alcohol. dilut. ℔ i

He directs a teaspoon full to be given three times a day in a glass of Madeira wine. The Helleborus niger is recommended as an useful gemmenagogue The dose is ℥ i of the Tincture.
During all this time particular attention should be paid to the mind of the patient. She should mingle frequently in society and be allowed all innocent amusements.